

EMPLOYMENT AMONG  
MARYLAND'S TCA LEAVERS:  
EXAMINING THE ROLE OF THE RECESSION

LETITIA LOGAN PASSARELLA, MPP  
RESEARCH DIRECTOR

SARAH WILLIAMSON, MPP  
PROJECT ANALYST

CATHERINE E. BORN, PhD  
PRINCIPAL INVESTIGATOR

NOVEMBER 2013



UNIVERSITY of MARYLAND  
SCHOOL OF SOCIAL WORK

## ACKNOWLEDGEMENTS

The authors would like to thank Jamie Haskel, Somlak Suvanasorn, and Lance Spicer for their assistance in the collection and processing of data for this report, as well as Nicholas Kolupanowich, Dr. Correne Saunders, and Dr. Terry Shaw for their assistance with data analysis.

This report was prepared by the Family Welfare Research and Training Group, School of Social Work, University of Maryland - Baltimore, 525 West Redwood Street, Baltimore, Maryland 21201 with support from its long time research partner, the Maryland Department of Human Resources.

For additional information about the report or the study, please contact Dr. Catherine Born (410.706.5134, [cborn@ssw.umaryland.edu](mailto:cborn@ssw.umaryland.edu)) or Ms. Letitia Logan Passarella (410.706.2479, [llogan@ssw.umaryland.edu](mailto:llogan@ssw.umaryland.edu)) at the School of Social Work. Please visit our Web site, [www.familywelfare.umaryland.edu](http://www.familywelfare.umaryland.edu), for additional copies of this and our other reports.

## TABLE OF CONTENTS

Executive Summary .....	i
Introduction .....	1
Methods .....	3
Sample .....	3
Data Sources.....	3
CARES .....	3
MABS .....	3
Bureau of Labor Statistics .....	4
Data Analysis .....	4
Findings: Post-Exit Employment Patterns .....	9
Conclusions .....	16
References .....	19

## LIST OF TABLES

Table 1. Casehead Characteristics .....	6
Table 2. Casehead Work and Welfare History.....	7
Table 3. Case Characteristics .....	8
Table 4. Panel Analysis on the Likelihood of Employment for Each Cohort.....	14
Table 5. Combined Panel Analysis.....	15

## LIST OF FIGURES

Figure 1. Employment Rates Relative to Time of Exit.....	10
Figure 2. Employment Rates Relative to Calendar Time .....	11

## EXECUTIVE SUMMARY

The underlying philosophy of welfare reform in 1996 was that any job, even if it did not pay well, was better than no job at all and that any job could be a steppingstone to a better one. For the most part, research studies found that this model seemed to work fairly well during the first decade of reform. Jobs were plentiful; tens of thousands of adults were able to find work and leave welfare; and cash assistance caseloads plunged to record low levels.

The situation is quite different today, largely because of the severe recession of 2008 and its aftereffects which have not yet fully receded. Among other things, millions of jobs were lost, including many in the fields in which former adult cash assistance recipients were employed, and the work-first approach to cash assistance was tested in ways never envisioned by its designers, or by state program administrators.

Maryland is perhaps the only state that has consistently tracked welfare leavers and their outcomes and study results confirm the damage wrought by the economic downturn. Work effort remains substantial, but recession (64.5%) and post-recession (62.4%) leavers have significantly lower post-exit employment rates than pre-recession leavers (72.9%), despite having more education, less welfare use, and at least equivalent prior work experience.

This raises obvious concerns about the effects of the economy on employment for this population. To further examine the relationship between the economic climates in which clients exit welfare and their subsequent employment outcomes, we review three cohorts of Maryland cases: families who left welfare in 1998 when the economy was good; those whose cases closed during the mild recession in 2001; and families who experienced a welfare case closure in 2008, at the height of the Great Recession. Key findings are below.

- The typical welfare leaver in all three cohorts was an African American woman in her early 30s with one or two children, but the percent with a high school education increased over time. Recent leavers were more likely to have a child under the age of six and were less likely to reside in Baltimore City.
- The 1998 leavers had less work experience and a higher percent of families with long-term welfare use. Work experience increased with each subsequent cohort, while long-term receipt of cash assistance declined.
- The overall economy does affect employment of welfare leavers. Those in 2001 and 2008 were significantly less likely to be working after their welfare exit than leavers in 1998 when the economy was booming.
- Human capital was also important for employment among leavers in all cohorts: leavers with a high school education and those with prior work experience were more likely to be working post-exit. Also, caseheads exiting welfare without a job were less likely to be working post-exit.
- Casehead age, household composition, number of children, or having young children appears not to have any significant effect on employment.

These findings yield two recommendations. One is that serious thought should be given to modernizing federal cash assistance program rules to reflect current realities. Specifically, attention should be paid to current restrictions with regard to part-time work and to education and training activities. The second is that Maryland's current efforts to promote sector-based skill development and identify career paths for clients should be continued.

## INTRODUCTION

Seventeen years ago, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) ushered in the Temporary Assistance to Needy Families (TANF) block grant—commonly referred to as welfare reform. The new program included time limits, sanctions, and a vigorous emphasis on moving clients from welfare to work as quickly as possible. Many states adopted a “work-first” approach built on the notion that any job, even a less-than-desirable one, was better than no job and could be a steppingstone to a better job. Consistent with federal requirements, Maryland’s reformed cash assistance program also incorporated a heavy welfare-to-work emphasis, including sanctions on clients who were noncompliant.

To understand how this new approach to cash assistance would unfold in our state, the Maryland General Assembly mandated an ongoing study of the characteristics of welfare leavers and their post-welfare outcomes, including employment and returns to cash assistance. Findings were generally quite positive in Maryland and elsewhere. State level studies consistently found that most people were, in fact, leaving for work (for reviews of nationwide studies, see Brauner & Loprest, 1999 and Acs & Loprest, 2004; for information on early Maryland leavers, see Born, Ovwigho, Leavitt, & Cordero, 2001).

These results were heartening, but with the benefit of hindsight, perhaps not surprising. During the first few years of welfare reform implementation, jobs were plentiful, with 2.8 million jobs created in 1996, well over the long-term annual average of 1.7 million (Bureau of Labor Statistics (BLS), 2011c). Hence, the economy at the time could support a work-first philosophy well. The work-oriented system was tested by the 2001 recession, but in Maryland, at least, client outcomes remained positive and caseloads continued to decline.

Times have certainly changed. We have now been through the deepest and longest-lasting economic decline since the Great Depression of the 1930s. Nationally, the unemployment rate increased 88% between 2007 and 2010, and cash assistance caseloads rose 14% during the same span of time (Zedlewski & Loprest, 2011). Even now, more than four years after the recession’s official end, its effects have not fully receded, and many families still struggle to make ends meet.

Continued economic fragility is evident in federal data showing that, from federal fiscal years 2010 through 2012, well after the end of the recession, Supplemental Nutrition Assistance Program participation continued to grow in all but two states (USDA, 2013). Not surprisingly, families who left welfare during and after the recession have less positive employment outcomes than earlier leavers (Nicoli, Logan, & Born, 2012).

Still, there are some signs of improvement in the economy. Nationally, the rate of unemployment dipped to 7.2% in September 2013, the lowest rate since December 2008 (BLS, 2011a). In Maryland specifically, the number of in-state jobs has rebounded to the pre-recession level and the state is one of only nine whose bonds are Triple A rated by all three rating agencies (Hopkins, 2013; Maryland State Treasurer, 2013).

This is the larger context in which we issue today’s report which, simply stated, tries to empirically ascertain if the state of the local economy affects post-exit employment among former cash assistance recipients in Maryland. To see if and how local economic conditions are associated with the post-exit employment, we look at three cohorts of Maryland welfare leavers: (1) families who left welfare in 1998 when the economy was good and jobs were plentiful; (2) families whose cases closed during the mild 2001 recession; and (3) families who experienced

a welfare case closure in 2008, at the height of the recession. Using descriptive statistics and multivariate methods, we seek empirical answers to three specific questions:

1. Are clients' demographic profiles similar across cohorts? How do they differ?
2. How do clients' work histories compare as well as their prior utilization of cash assistance?
3. All else equal, how do local economic conditions affect clients' employment?

This study provides a relevant, empirically-based picture of how welfare leavers during troubled times compare to those in better times, what happens to them after they exit, and how their demographic characteristics and the bigger economic picture relate to post-welfare outcomes. In particular, we replicate a Wisconsin study that used cohort-comparison methods to investigate the post-exit employment patterns of adults who left welfare in 1998 and during the 2001 recession (Kwon & Meyer, 2011). Not surprisingly, those who left during the 2001 recession were less likely to work after exit than those who left during the far rosier economic times of 1998. More specifically, local unemployment rates mattered: leavers in Wisconsin counties with high rates of unemployment were less likely to work than were leavers from counties with lower rates.

Our study replicates the Wisconsin methods to see if the observed relationship between economic conditions and post-exit employment also holds in Maryland, but with one important enhancement. In addition to looking at cases that closed during strong economic times (1998) and

during the mild economic recession in 2001, we look also at a third cohort, investigating the relationship between economic conditions and post-exit employment for those who left welfare at the height of the Great Recession (2008).

We may find, as Kwon & Meyer (2011) did in Wisconsin, that leavers' employment is related to economic conditions. On the other hand, we could find that employment and economic conditions are not related, suggesting that other factors, such as client or case characteristics, matter more in terms of post-welfare employment. Either finding has implications for TCA welfare-to-work programming and policy.

Of course, no simple explanation can adequately capture the complexities and issues that affect the day-to-day employment of low-income women attempting to leave welfare for work. Even so, it is important to be able to empirically understand the extent to which local economic conditions are or are not influential.

The near-term future is cloudy for clients and a lack of clarity about the timing and content of TANF reauthorization adds more uncertainty to an already challenging situation for case managers. In times such as these, it is essential that decision-makers have reliable empirical information. Hopefully, study findings will be useful in helping to inform policy and program choices in this difficult period, as previous research projects were able to do in earlier, less troublesome times.

## METHODS

### Sample

The findings presented in this report are based on analysis of data from three separate populations of welfare leavers. Specifically, we look at the entire universe of cases that experienced a welfare case closure in Maryland in one of three time periods:

- 1) Cohort 1: closures during the third quarter of 1998 (July, August, and September);
- 2) Cohort 2: closures during the third quarter of 2001 (July, August, and September); and
- 3) Cohort 3: closures during the fourth quarter of 2008 (October, November, and December).

Our interest here is in post-exit employment outcomes under various economic conditions, so certain types of cases and situations are excluded from the sample. First, we exclude child-only cases because they are not subject to work requirements or time limits. Second, we exclude cases that returned to assistance within 60 days of exit. Previous research has shown that cases which close and reopen quickly differ in many important ways from those that exit welfare for longer periods (Born, Ovwigho, & Cordero, 2002). Also, these off-on cases more often reflect missed appointments, delayed paperwork, or the curing of a work sanction than they do true welfare “exits”. Finally, we exclude cases with a male casehead in order to replicate the sample from the Kwon & Meyer (2011) study. Our final study sample consists of 13,479 cases: 7,030 exited in 1998; 3,485 exited in 2001; and 2,964 exited in 2008.

### Data Sources

#### CARES

The Client Automated Resources and Eligibility System (CARES) has been the statewide automated data system for certain DHR programs since March 1998. CARES provides individual and case level program participation data for cash assistance (TCA), Food Supplement, and Medical Assistance. Demographic data are available, as well as information about the type of program, application and disposition (denial or closure) date for each service episode, and codes indicating the relationship of each individual to the head of the assistance unit.

#### MABS

Quarterly employment and earnings data come from the Maryland Automated Benefits System (MABS). MABS includes data from all employers covered by the state’s Unemployment Insurance (UI) law (approximately 93% of Maryland jobs). Independent contractors, sales people on commission only, some farm workers, federal government employees (civilian and military), some student interns, most religious organization employees, and self-employed persons who do not employ any paid individuals are not covered. “Off the books” or “under the table” employment is not included, nor is employment located in other states.

Maryland shares borders with Delaware, Pennsylvania, Virginia, West Virginia, and the District of Columbia and out-of-state employment is common. Overall, the rate of out-of-state employment by Maryland residents (17.5%) is more than four times

greater than the national average (3.8%)<sup>1</sup>. Out-of-state employment is particularly common among residents of two very populous jurisdictions (Montgomery, 29.8% and Prince George's Counties, 42.4%), which have the 5<sup>th</sup> and 3<sup>rd</sup> largest welfare caseloads in the state. Out-of-state employment is also fairly common among residents of two smaller counties (Cecil, 31.1% and Charles, 34.6%). One consideration, however, is that we cannot be sure the extent to which these high rates of out-of-state employment also describe welfare recipients or leavers accurately.

Because UI earnings data are reported on an aggregated, quarterly basis, we do not know, for any given quarter, how much of that time period the individual was employed (i.e. how many months, weeks, or hours). Thus, it is not possible to compute or infer hourly wages or weekly or monthly salary from these data. It is also important to remember that the earnings figures reported do not necessarily equal total household income; we have no information on earnings of other household members, if any, or data about any other income available to the family.

### **Bureau of Labor Statistics**

For our measure of local labor market conditions, we use county-level unemployment rates. The United States Bureau of Labor Statistics (BLS) reports monthly unemployment estimates for all States, metro areas, and smaller labor market areas through their Local Area Unemployment Statistics program.

---

<sup>1</sup> Data obtained from U.S. Census Bureau website <http://www.factfinder.census.gov> using the 2008-2010 American Community Survey 3-Year Estimates for Sex of Workers by Place of Work-State and County Level (B08007).

### **Data Analysis**

The descriptive findings section of this report employs univariate statistics to describe the characteristics of each cohort of leavers, including demographics, welfare histories, and employment histories. Where appropriate we compare cohorts using Chi-square and analysis of variance (ANOVA) tests.

The multivariate section of the report employs a technique called Generalized Estimating Equation (GEE) regression modeling. The GEE model measures the average effect of a unit change in the predictors for a subgroup that share a common value, i.e. it maximizes the predictability of the subpopulations and not of the individuals comprising the subpopulations. However, GEE does have the ability to take into account the existence of within-person serial correlation; for example, employment in one quarter is highly correlated with employment in previous and subsequent quarters.

Four separate GEE models were constructed. First we created a separate model for each of the three cohorts of leavers (i.e., for 1998, 2001, and 2008), where exit year is the common value shared by the subgroup members. Each separate model controls for individual and case characteristics to test whether local area unemployment played a role in the likelihood of welfare leavers' finding employment after exit.

A fourth model is also created which pools data from all three cohorts and includes an indicator variable identifying each cohort. The indicator variable captures the fact that each cohort left welfare under different macroeconomic conditions, so local area unemployment is not included in this combined model as differences in the economy are accounted for in the cohort variable. The fourth model also controls for individual and case characteristics, but tests the relationship between the cohort indicator and employment outcomes.



## Limitations

The problem of missing data is nearly universal in research, regardless of the method of data collection or the type of data being analyzed. Administrative data, such as we use in this study, are not exempt from this problem. In our many dozens of research projects which have used Maryland administrative data, we have consistently found that only a small number of cases tend to be missing data for an important study variable.

The present study is an exception, however. Specifically, we lack data on the education level of caseheads for 3 of every 10 study cases (30.5%;  $n=4,116/13,479$ ). Also, the data are missing in a systematic way; all but 18 of the 4,116 caseheads for whom education data are missing are those whose cases closed in 1998 ( $n=4,098/4,116$ ).

The result is that we have education data for about two in five 1998 leavers (41.7%,  $n=2,932/7,030$ ), but for 99.7% of the 2001 and 2008 leavers ( $n=6,431/6,449$ ). The large discrepancy in the percentage of cases with education data is due to a change in agency practice. Educational level was not a mandatory field for case managers to complete in the 1990s, but it had become one by 2001 and remains mandatory today.

Although we identified why so much education data were missing among the 1998 leavers, further analysis was needed to see what effect the missing data might have on study results. To address this, we ran a variety of correlations and ran several additional GEE models. Bivariate correlations were relatively low with the expected exception of a strong correlation between exit cohort and missing education data.

Furthermore, the Generalized Estimating Equation (GEE) models were computed by excluding the education variable entirely and also by excluding only the cases with the missing education variable. We found that when the education variable was

removed entirely from the model, there were no significant changes to the other variables within the model. When the education variable was included in the model, but the missing education cases were excluded, the results did change somewhat, especially with regard to ethnicity. Specifically, when cases with missing education data were omitted, individuals with a coding of 'other race' were more likely to be working, while those whose ethnicity was unknown were less likely to be working.

Despite the level of missing data for the 1998 cases, we kept the education variable in the final GEE models. First, there is minimal correlation between the missing education data and other variables in the model. Second, the exclusion of the education variable altogether and excluding cases with missing education data from the models results in only marginal changes to model results. Third, educational attainment is closely correlated with employment and earnings outcomes. For example, adults without a high school diploma had an unemployment rate of 12.4% in 2012 compared to 8.3% for those with a high school diploma and 4.5% for those with a Bachelor's degree (BLS, 2013). Also, adults who do not have a high school diploma earned about \$100 less per week compared to those with a high school education and \$600 less per week versus those with a Bachelor's degree (BLS, 2013). Race and gender may also affect earnings, but the impact of education appears to be greater. In fact, the earnings difference between persons with a professional degree and those with an eighth grade education was five times greater than the impact of gender on earnings (Julian & Kominski, 2011).

An additional limitation is related to the use of Maryland UI-wage data. Because we only use Maryland data, out-of-state employment by Maryland residents will not be captured in our analyses. Likewise, leavers who have moved to another state and were working there will also not have their employment captured in our analyses.

## FINDINGS: CHARACTERISTICS OF LEAVERS

The characteristics of the typical welfare leaver and her case have been generally consistent across the first 17 years of welfare reform in Maryland (Nicoli, Logan, & Born, 2012). On average, the typical welfare leaver is an African-American woman in her early 30s who has never married and has finished 12<sup>th</sup> grade but has no further education. The plurality of exiting cases has been from Baltimore City. Typically, assistance units are small, containing only two or three persons, and in about two-fifths of cases, there is at least one child under three years of age. Over time, leavers' persistent attachment to the workforce has also been a consistent finding: most leavers worked before coming onto assistance and most work at some point in the year after their welfare cases close. Generally, the profile of leavers is much like that of the typical payee on an active (i.e., open) assistance case (Nicoli, Passarella, & Born, 2012).

In Table 1, following, we present selected demographic and human capital

characteristics of the women who headed assistance cases that closed for at least 60 days during our three time periods (1998, 2001, and 2008). There are statistically significant differences on three of the four variables and, considered together, results paint a concordant picture.<sup>2</sup> Women who left welfare during good economic times (1998) were slightly older, on average, than those whose cases closed during the mild (2001) or severe (2008) recessions. Although education data are missing for more than half of the 1998 exiters, it appears that the 1998 cohort had significantly fewer years of schooling, and educational attainment increases between the 2001 and 2008 cohorts. Finally, although the absolute difference is small (about one percentage point), women in the 2008 exit group were less likely to report a primary language other than English.

<sup>2</sup> The three cohorts did not differ on ethnicity. In all three time periods about three in four leavers were African-American, a bit more than one in five were Caucasian, and only about two percent were members of other ethnic groups.

**Table 1. Casehead Characteristics**

	<b>1998 Leavers</b> (n=7,030)	<b>2001 Leavers</b> (n=3,485)	<b>2008 Leavers</b> (n=2,964)
<b>Mean [Median] Age***</b>	30.47 [29.64]	30.49 [29.20]	29.80 [27.75]
<b>Race</b>			
Caucasian	22.5% (1,516)	20.9% (714)	21.0% (610)
African American	75.3% (5,067)	77.1% (2,630)	76.8% (2,233)
Hispanic	1.3% (86)	1.4% (49)	1.7% (49)
Other	0.8% (56)	0.6% (19)	0.6% (16)
<b>Education Level</b>			
Less than high school***	69.0% (2,023)	41.9% (1,458)	36.3% (1,074)
High school diploma or GED***	26.6% (781)	52.0% (1,809)	59.2% (1,750)
More than high school**	4.4% (128)	6.0% (209)	4.4% (131)
Missing	58.3% (4,098)	0.2% (9)	0.3% (9)
<b>Primary Language**</b>			
English	97.8% (6,874)	97.3% (3,392)	98.6% (2,923)
Other	2.2% (156)	2.7% (93)	1.4% (41)

**Note:** All variables have some level of missing data so that counts do not sum to the total; however, the missing education data is displayed in the table due to the high level of missing data among 1998 leavers. There is a discussion of this limitation in the Methods chapter. Valid percentages are shown. \*p<.05; \*\*p<.01; \*\*\*p<.001.

The next table considers two other factors that conceivably could affect leavers' likelihood of working after their welfare cases close: prior work experience and the extent of their recent receipt of cash assistance. Our three cohorts of leavers differ significantly on both variables and, again, it is the earliest (1998) leavers for whom findings are less positive.

Even though their welfare exits took place when times were good and jobs were plentiful, Table 2 shows that 1998 leavers worked less, on average, in the two years prior to case closure than did leavers in either of the two recession cohorts. Leavers

in 1998 had worked an average of 2.74 quarters out of eight, compared to 3.39 and 3.44 quarters among 2001 and 2008 leavers, respectively.

The 1998 leavers were also much more likely to have been long-term cash assistance recipients. Not quite half of them (46.2%) had been on aid at least 75 percent of the time in the three years before their welfare exit, compared to just about one-third (32.2%) of exiters during the mild 2001 recession. In stark contrast to both earlier cohorts, among those whose cases closed in 2008, the percentage of long-term recipients was only 14.2%.

**Table 2. Casehead Work and Welfare History**

	1998 Leavers (n=7,030)		2001 Leavers (n=3,485)		2008 Leavers (n=2,964)	
<b>Mean [Median] Work Experience***</b>	2.74	[2.00]	3.39	[2.00]	3.44	[3.00]
<b>Long-term TCA Recipients***</b>	46.2%	(3,245)	32.2%	(2,338)	14.2%	(417)

**Note:** Work experience represents the number of quarters with earnings in the eight quarters before exit. Long-term TCA Recipients is defined as TCA receipt in 27 or more of the 36 months preceding exit (i.e. at least 75% of the time). Counts may not sum to actual sample size due to missing data. Valid percentages are reported.

\*p<.05; \*\*p<.01; \*\*\*p<.001.

The next and final table (Table 3) in this chapter also presents descriptive information about leavers' situations at the time of the case closures that brought them into our study sample. It describes the number and age of children on the case, the number of adults, and the family's place of residence at the time the welfare case closure occurred. These variables are also associated with employment. To illustrate, mothers with older children (none younger than six years of age) are more likely to participate in the labor force than are mother with children under six years of age (BLS, 2009).

Table 3 shows that there were some statistically significant differences in certain case characteristics depending on when the

TCA case closed, but also some important similarities. For example, about two-fifths of families in all cohorts had only one child, and about one-fifth had three or more children. Some differences among the cohorts include small increases in the percentage of children under the age of six (65.0% to 65.5% to 72.9% in 2008), in the percentage of leavers' families that include two parents (2.2% to 3.1% to 3.2% in 2008), and a slight shift in residence at the time of TCA exit. Leavers during the 2001 recession were much more likely to be Baltimore City residents than leavers in 1998 (57.2% versus 49.4%). In contrast, leavers during the Great Recession were less likely to live in Baltimore City than leavers in the other two periods (44.9%).

**Table 3. Case Characteristics**

	<b>1998 Leavers</b> (n=7,030)	<b>2001 Leavers</b> (n=3,485)	<b>2008 Leavers</b> (n=2,964)
<b>Number of Children</b>			
0**	3.6% (255)	4.8% (167)	4.9% (144)
1	44.7% (3,141)	43.1% (1,501)	44.5% (1,320)
2	29.7% (2,086)	30.7% (1,069)	28.7% (850)
3 or more	22.0% (1,547)	21.5% (748)	21.9% (650)
<b>Youngest Child's Age***</b>			
Younger than 6	65.0% (4,423)	65.5% (2,193)	72.9% (2,078)
Older than 6	35.0% (2,386)	34.5% (1,157)	27.1% (771)
<b>Household Type**</b>			
Single-parent	97.8% (6,871)	96.9% (3,376)	96.8% (2,868)
Two-adult family	2.2% (158)	3.1% (109)	3.2% (96)
<b>Residence</b>			
Baltimore City***	49.4% (3,474)	57.2% (1,995)	44.9% (1,332)
Other urban counties***	45.0% (3,167)	37.6% (1,311)	48.7% (1,442)
Rural counties	5.5% (389)	5.1% (179)	6.4% (190)

**Note:** Counts may not sum to actual sample size due to missing data. Valid percentages are reported.

\*p<.05; \*\*p<.01; \*\*\*p<.001

The information in Tables 1, 2, and 3 jointly considered suggests that 2008 leavers, on average, may have had certain advantages vis-à-vis the labor market, especially compared to leavers from a decade ago (1998). The 2008 cohort, despite their younger average age, were more likely to have a high school education as well as stronger work histories, shorter welfare histories, and fewer children. On the other hand, their children were younger, on

average, than were the children of leavers in 1998 and 2001, which might impact their job opportunities if child care is difficult to access or afford. On the whole, though, later leavers do appear to have better human capital upon exit than their peers in earlier cohorts. The next chapter examines how these potential advantages and disadvantages actually played out in our leavers' post-exit employment experiences.

## FINDINGS: POST-EXIT EMPLOYMENT PATTERNS

Maryland research studies have consistently documented that women who currently receive or who formerly received cash assistance are not unfamiliar with the world of paid employment. Most recipient adults work before coming onto assistance and most are employed afterward as well (Nicoli, Logan, & Born, 2012). Often, however, their jobs have been in fields where turnover is high, benefits are few, and opportunities for advancement are limited. The 'top five' fields where Maryland welfare leavers between 1996 and 2001 found post-exit jobs, to illustrate, were temporary help/employment agencies; general eating and drinking places; department stores; nursing homes; and grocery stores (Born et al., 2001). The same fields also predominated in a study of employment among women who were receiving assistance in 2001 (Born, Hetling, Lacey, & Tracy, 2003).

These findings mirror national ones confirming that the jobs of current and former adult cash assistance recipients tend to cluster in lower-skill and or lower-wage service sector jobs in restaurants, bars, nursing homes, hotels/motels, department stores and temporary help service firms (Boushey, 2002; Lower-Basch & Greenberg, 2008). The instability often associated with women's jobs has contributed to the phenomenon of recidivism or returning to welfare after an exit (Born et al., 2002).

The caveats about recipients' and former recipients' typical jobs notwithstanding, the empirical evidence is overwhelmingly consistent and has been for many years about the relationship between employment and post-welfare outcomes. The relationship is positive: women who have

worked in the past or who work at or near the time they leave welfare, tend to have better outcomes over time. Although the 2008 recession has made it more difficult for women to leave welfare for work, the general trends remain the same: women involved in the labor force are less likely to return to welfare, they are more likely to keep working, and their earnings increase over time (Nicoli, Logan, & Born, 2012). The ultimate question addressed in this paper is whether local unemployment rates have an effect on post-exit employment among women who left welfare in three time periods characterized by very distinct macroeconomic conditions, including different unemployment rates. That question is answered in the next chapter, but here we present some descriptive information about leavers' employment patterns in the quarters following their exits from welfare.

We begin with Figure 1 which, separately for each cohort of leavers, shows the percent of women working in a Maryland UI-covered job in the quarter of welfare exit and in each quarter up to and through the third post-exit year<sup>3</sup>. Two points are obvious. The first is that at every measuring point, post-exit employment rates are highest among the earliest (1998) leavers, lower among those whose cases closed during the mild 2001 recession and lower still among those who left welfare while the 2008 recession raged. The second is that, for all three cohorts of leavers, employment is highest right at the time of or very shortly after welfare case closure. Employment declines somewhat thereafter and then generally holds steady. The employment spike proximate to the time of the welfare exit makes intuitive sense and is consistent with findings from the *Life after Welfare* reports which confirm that employment often instigates a cash assistance exit.

---

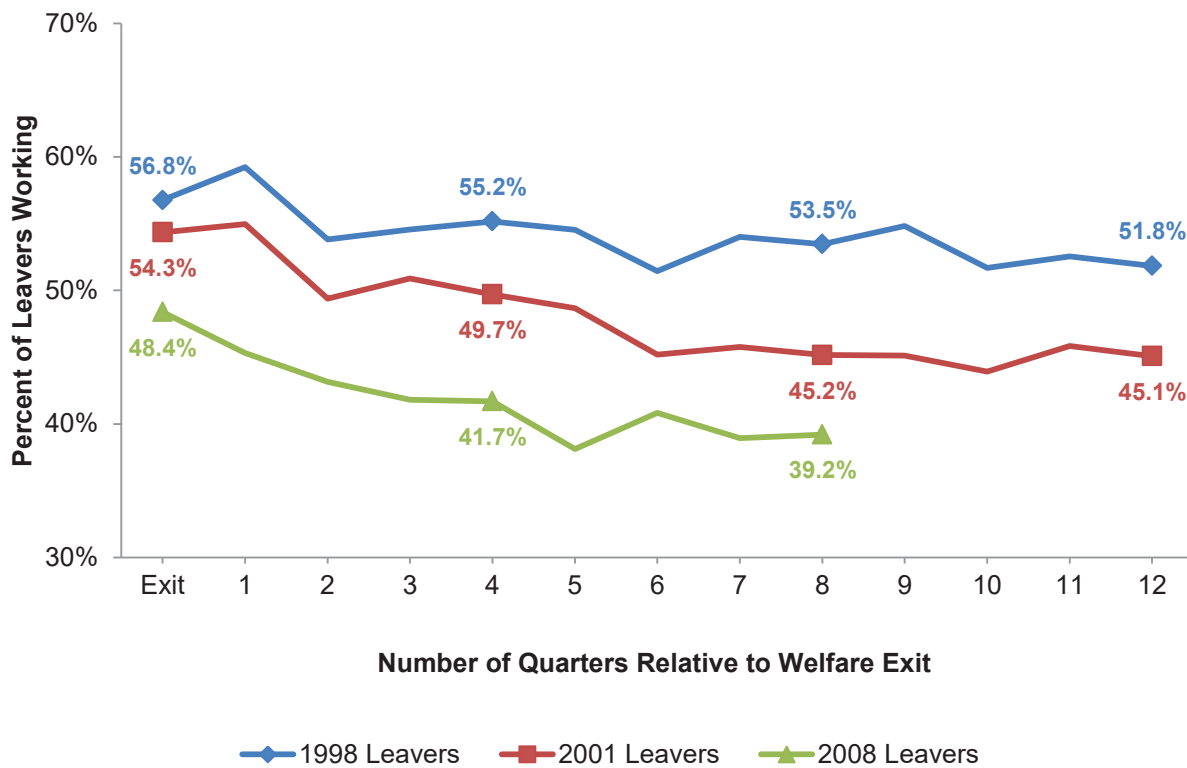
<sup>3</sup> Employment data was available through December 2010, limiting the 2008 leavers to two post-exit years.

Specifically, at exit, nearly three-fifths (56.8%) of the 1998 leavers were working and more than half were working throughout the following 12 quarters. More than half (54.3%) of 2001 leavers were working at exit, but dropped below half in the fourth follow-up quarter (49.7%) and only 45.1% were working by the 12<sup>th</sup> follow-up quarter.

recession were less likely to be employed at the time of case closure and over the first two years after case closure. Among this cohort, not quite half (48.4%) were working at some point during the quarter of their exit. By the end of the 8<sup>th</sup> follow-up quarter, however, only two-fifths (39.2%) were working, the lowest employment rate observed for any cohort during any time period examined.

Figure 1 also shows that women leaving welfare in 2008 during the height of the

**Figure 1. Employment Rates Relative to Time of Exit**



**Note:** Employment figures exclude information for three individuals for whom we have no unique identifier. Valid percentages are shown. Employment data is available through the fourth quarter of 2010.

In Figure 2, the percentages of each cohort's employed leavers, by calendar quarter, are graphed against the statewide unemployment rate. The gray-shaded columns represent the 2001 and 2008 recessions.

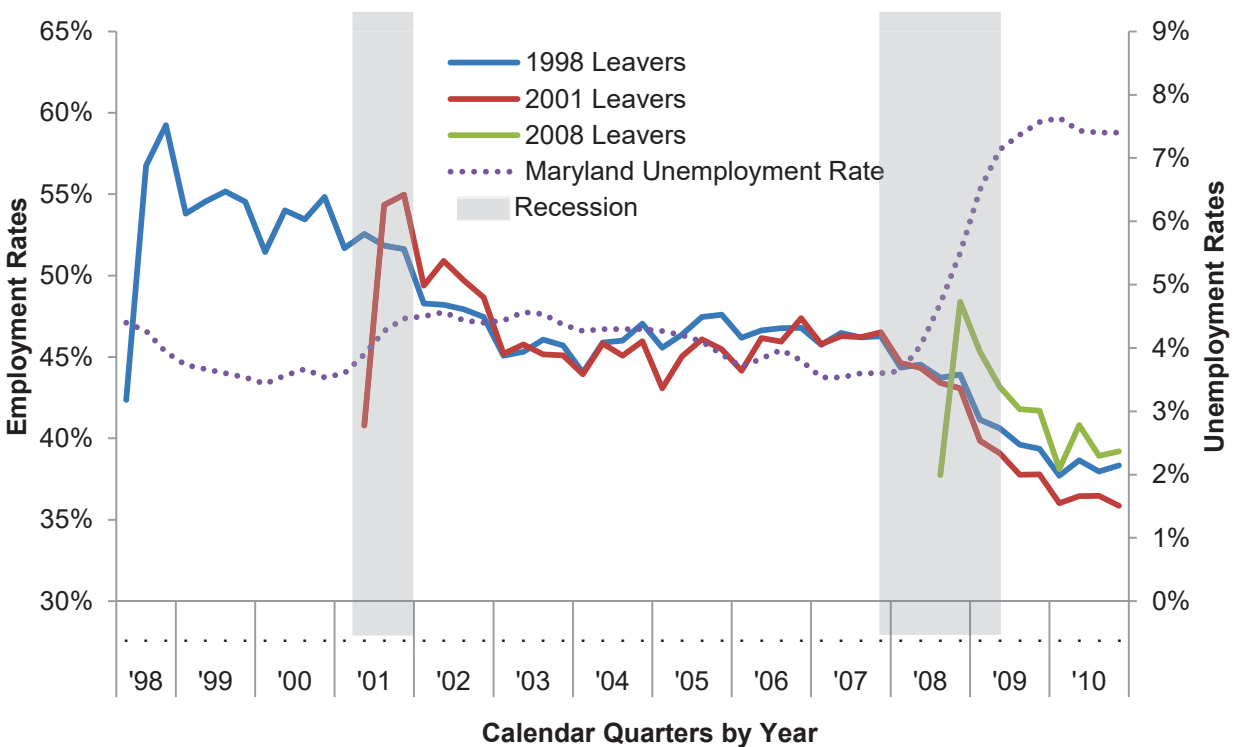
because, as discussed previously, the 2008 leavers, as a group, had greater human capital resources. More of them had at least a high school diploma, they had stronger work histories, and they had been less dependent on cash assistance.

The patterns illustrated in Figure 2 are consistent with common sense: the economy matters with regard to welfare leavers' employment. When the rate of unemployment is low, the percentage of leavers working is elevated as Figure 2 clearly shows was the case before the 2001 recession. The reverse is also true, as the post-2008 recession portion of Figure 2 makes plain. Elevated unemployment rates correspond with depressed employment rates for the women in each of the three cohorts.

The fact that employment rates of all three cohorts trended together over calendar time also suggests that something in the larger macroeconomic picture is influencing the likelihood of leavers' employment. Using multivariate analytic methods allows us to control for individual characteristics to determine, all else being equal, the relationship between economic conditions, specifically local unemployment rates, and the likelihood of employment for this population. That is the subject of our next and final findings chapter.

Individual characteristics are not a sufficient explanation for the observed pattern

**Figure 2. Employment Rates Relative to Calendar Time**



**Note:** Employment figures exclude information for three individuals for whom we have no unique identifier.

## FINDINGS: PREDICTING EMPLOYMENT

Many factors are associated with the likelihood that a former cash assistance recipient is employed in any given time period and, over the years, the research literature has been consistent in identifying what some of the client-level factors are. Among the more obvious ones are prior work experience, education level, and age (Dworsky & Courtney, 2007; Holzer, Stoll, & Wissoker, 2004). Local and national research reports have also documented that the recent recession and its persistent aftershocks have been associated with lower rates of employment among women leaving welfare (Nicoli, Logan, & Born, 2012; CBPP, 2012).

The central purpose in this study is somewhat different, however. Here the goal is to see if some factors may be more important than others in explaining post-exit employment, arguably the outcome of greatest interest and importance vis-à-vis the reformed, work-focused cash assistance system. This question has become even more important over time because the economy remains fragile, recovery is incomplete, and less-educated workers continued to lose jobs at a substantial rate, even well after the end of the recession (Loprest & Nichols, 2011).

We use a particular form of regression analysis, Generalized Estimating Equations (GEE), to assess the effect of local job market conditions (specifically county-level unemployment rates) on our outcome of interest: quarterly employment rates among former cash assistance recipients in Maryland. We model our project after one undertaken by Kwon & Meyer (2011) in Wisconsin, but expand upon that work. The Wisconsin study tested the relationship between local unemployment rates and work outcomes for adults who left welfare during either the economic boom of 1998 or the mild recession of 2001. We look at 1998 and 2001 leavers as well, but expand the

analysis to also include a cohort of leavers who exited during the economic maelstrom of 2008.

Our statistical models, like those used in Wisconsin, control for a number of individual and case-level variables. Person-level variables include age, race, education level, workforce experience of the adult, and industry in which she worked at the time of welfare exit.<sup>4</sup> Family and case variables include the number of adults and children in the family, age of youngest child, and the family's history of cash assistance use. We also include a variable indicating whether or not the case had closed because of a full-family work sanction, because other Maryland research has found that the rate of work sanction closures has greatly increased (Williamson, 2011). If not controlled for, this trend could distort model results.

For the purposes of this report, GEE is advantageous because it allows us to predict the employment likelihood of welfare leavers who exit during different macroeconomic periods (the three cohorts), while still accounting for the fact that employment of a client in one quarter is highly correlated with her employment in previous and subsequent quarters. Four separate GEE models were constructed. First we created a separate model for each of the three cohorts of leavers (i.e., for 1998, 2001, and 2008), and a fourth, combined model which includes all cases from all three cohorts. The three separate models control for individual and case characteristics and, for the exit time period represented, test whether local area unemployment played a role in the

---

<sup>4</sup> Workforce experience is measured by number of quarters worked in the two pre-exit years. Industry is determined using the North American Industry Classification System (NAICS) code associated with the woman's employer.



likelihood of welfare leavers' finding post-exit employment.

The fourth, combined model pools data from all three cohorts and includes an indicator variable identifying each cohort. The indicator variable captures the fact that each cohort left welfare under different macroeconomic conditions, and therefore local unemployment data is excluded from this fourth model. This model also controls for individual and case characteristics, but tests the relationship between the cohort indicator and employment outcomes.

We first present results from the three separate models in Table 4, following. One key finding is that there is a statistically significant, albeit very slight and almost negligible, relationship between local area unemployment rates and work for 1998 welfare leavers, but not for leavers in 2001 or 2008. Indeed, for all three time periods, the coefficients are close to zero (i.e., no relationship). Specifically, the coefficients are -0.03, -0.07, -0.01 for 1998, 2001, and 2008, respectively.

The other truly important finding is that, across time, only two things are consistently associated with a greater likelihood of post-exit employment: education and work. No matter when the TCA case closed, clients with stronger work histories are more likely to be working after the welfare exit that brought them into our sample. Conversely, exiting welfare without a job was significantly associated with unemployment in the follow-up quarters for each cohort. The importance of human capital is also confirmed by the finding that the attainment of a high school diploma was significantly associated with future employment after exit. In fact, the only significant factors for the 2008 leavers were related to human

capital: having a high school diploma and strong work history were associated with post-exit employment, while exiting without a job was associated with lower employment participation.

Table 5 presents the results for the combined GEE model. The most important finding is that controlling for all observable and unobservable characteristics, leavers in 2001 and 2008 are significantly less likely to be working after their welfare exit than those who left in 1998 when the economy was booming.

Notably, too, our results differ in one key area from the findings reported from Wisconsin. Specifically, in our combined model, education does matter; having at least a high school education is positively associated with subsequent employment, no matter when the welfare exit took place.

Work also matters in the combined model. Leavers with a strong work history and those who were working at the time they left welfare are more likely to work in the future. Those who were not employed at the time they left welfare are less likely to work in subsequent quarters.

Other factors considered in the model seem to matter much less insofar as future employment is concerned. African-American caseheads, caseheads whose first language is English, and work sanctioned cases were marginally less likely to have subsequent employment, while those with long-term TCA receipt were slightly more likely to have employment after their exit. Age of the client, number of children, age of the youngest child, place of residence, and whether the case was single-parent or two-parent had no effect on post-exit employment in the combined model.

**Table 4. Panel Analysis on the Likelihood of Employment for Each Cohort**

	Separate GEE Models					
	1998		2001		2008	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
County Unemployment Rate	-0.031 *	0.014	-0.073	0.041	-0.010	0.035
Age	-0.013	0.017	-0.040	0.025	0.004	0.029
Age Squared	0.000	0.000	0.000	0.000	0.000	0.000
Race (reference: 'White')						
African American	-0.114 *	0.049	-0.046	0.071	-0.038	0.083
Hispanic	-0.198	0.188	-0.302	0.265	0.386	0.257
Other	-0.139	0.216	0.225	0.336	-0.029	0.430
Education (reference: 'Less than HS')						
High School Diploma	0.252 ***	0.068	0.355 ***	0.057	0.271 ***	0.065
More than HS	0.238	0.154	0.293 *	0.126	0.257	0.171
Missing	0.213 ***	0.042	-0.491	0.568	0.971 **	0.342
Work Experience	0.162 ***	0.008	0.187 ***	0.011	0.174 ***	0.012
Language (reference: 'Other')						
English	-0.095	0.125	-0.513 **	0.193	-0.334	0.247
Number of Children (reference: 'One')						
0	0.039	0.137	-0.042	0.190	-0.032	0.224
2	0.003	0.044	-0.016	0.062	0.023	0.074
3 or more	0.077	0.052	0.029	0.074	-0.102	0.083
Youngest Child <6 at Exit	0.085	0.047	0.069	0.071	-0.040	0.086
Household Structure (reference: 'Single Parent')						
Two-parent Family	-0.239	0.126	-0.226	0.162	-0.008	0.174
Long-term TCA Experience	0.181 ***	0.039	0.114	0.062	0.055	0.091
Location (reference: 'Other Urban')						
Baltimore City	0.182 **	0.067	0.303 *	0.133	-0.011	0.127
Rural Counties	0.157	0.093	0.272 *	0.128	-0.050	0.148
Employment Industry at Exit (reference: 'Manufacturing')						
Not Working	-1.858 ***	0.113	-2.295 ***	0.204	-2.345 ***	0.314
Service	-0.007	0.115	-0.081	0.207	0.336	0.318
Trade	-0.091	0.126	-0.360	0.220	0.086	0.325
Other	0.133	0.138	0.074	0.232	0.342	0.347
Missing	-0.827 ***	0.117	-0.889 ***	0.209	-0.632 *	0.316
Work Sanction	0.019	0.056	-0.142 *	0.067	-0.032	0.067
Quarter Fixed Effects	Yes		Yes		Yes	
Intercept	0.172	0.342	2.779	0.525	1.162	0.679
Total N	61,272		29,862		25,362	
GEE Fit Criteria (QIC)	69298.7		31382.9		25304.3	

\* p<.05 \*\* p<.01 \*\*\* p<.001

**Table 5. Combined Panel Analysis**

	<b>Combined GEE Model</b>	
	Coefficient	SE
Cohort (reference: 1998)		
2001	-0.807 ***	0.062
2008	-1.009 ***	0.066
Age	-0.005	0.013
Age Squared	0.000	0.000
Race (reference: 'White')		
African American	-0.073 *	0.036
Hispanic	-0.084	0.132
Other	-0.048	0.171
Education (reference: 'Less than High School')		
High School Diploma	0.285 ***	0.037
More than HS	0.228 *	0.091
Missing	0.231 ***	0.044
Work Experience	0.159 ***	0.007
Language (reference: 'Other')		
English	-0.240 *	0.098
Number of Children (reference: 'One')		
0	0.077	0.106
2	0.021	0.035
3 or more	0.041	0.040
Youngest Child <6 at Exit	0.063	0.040
Household Structure (reference: 'Single Parent')		
Two-parent Family	-0.170	0.091
Long-term TCA Experience	0.117 **	0.036
Location (reference: 'Other Urban Counties')		
Baltimore City	0.057	0.033
Rural Counties	0.054	0.059
Employment Industry at Exit (reference: 'Manufacturing')		
Not Working	-1.941 ***	0.119
Service	0.120	0.119
Trade	-0.034	0.125
Other	0.252	0.131
Missing	-0.720 ***	0.119
Work Sanction	-0.088 *	0.039
Quarter Fixed Effects	Yes	
Intercept	1.9959	0.3642
Total N	116,496	
GEE Fit Criteria (QIC)	126167.6	

\* p<.05 \*\* p<.01 \*\*\* p<.001

## CONCLUSIONS

Our goal in this paper was to empirically investigate whether local unemployment rates influenced the employment outcomes of welfare leavers whose cases closed during three very different sets of economic conditions. Study findings were mixed, but the practical implications arising from the study are not. We find a slight relationship between county unemployment rates and subsequent employment for families whose welfare cases closed in 1998 when jobs were plentiful and for families whose cases closed during the mild recession in 2001. This means that employment outcomes of welfare leavers in those two time periods did trend with local employment conditions.

For women who left welfare during the 2008 Great Recession, however, we find no significant relationship between local unemployment rates and the likelihood of subsequent employment. This finding may at first glance seem counterintuitive, but a closer look at trends in Maryland's unemployment rate gives a sense of why this might be the case. Following the 2001 recession, statewide unemployment peaked at 4.6 percent, hovered around that level, and fell to a trough of 3.5 percent in the first two quarters of 2007.

In contrast, as the 2008 recession got underway, the unemployment rate at the outset was 3.6 percent. It then rose precipitously, passing the 4.6 percent mark only nine months later and, eventually, reaching a post-recession peak of 7.6 percent in the first quarter of 2010. In effect, the statewide unemployment rate was at such a historically high level that small changes—positive or negative—no longer exerted nearly as much influence on whether leavers found work in the quarters following their welfare exit.

Evident from our combined multivariate model, however, is that the overall economy does still influence how likely it is that women work after their welfare cases

close. Controlling for individual observable and unobservable factors, women who left welfare either during the mild recession in 2001 or the Great Recession were less likely to work than women who left welfare during the economic boom of the late 1990s. Even despite their better human capital, tough economic times make it especially difficult for women who leave welfare to find work and move their families toward self-sufficiency.

Another finding, supported by both the separate and combined regression models, is the importance of human capital on the likelihood of work among welfare leavers. For this population, having a high school diploma has a significant, positive influence on work after exit. Indeed, the only significant predictors of better employment outcomes among leavers who exited during the Great Recession were work experience, having a job at exit, and having a high school diploma.

Taken together, study findings have some practical implications for welfare policy. First, our results empirically confirm that a work-focused welfare program can be very successful under certain conditions and yet, through no fault of its own, struggle to meet target thresholds under others. When jobs are plentiful and employers are eager for workers, such as was true in 1998, even women with lower education or work experience may find it relatively easy to find work. When the economy contracts and competition for jobs is fierce, as was true in 2008 and is still true today, even women who have work experience and more education may struggle to find work, despite their own best efforts and those of case managers.

Another implication from the study is that, as long as unemployment rates continue to be well above their normative, historical levels, welfare-to-work programs and their work-eligible clients are likely to continue to

face difficulties in transitioning from welfare to work. In short, the situation today is much, much different and far more difficult than it was when the work-focused TANF program was created in the mid-1990s. However, the situation is far from hopeless and there are several avenues that could be productively pursued.

At the national level, TANF reauthorization will offer at least an opportunity to make the case for program changes that better fit today's realities. One modernization that seems more than justified would be to revise the 'all or nothing' requirement related to work hours, under which neither the client nor the state get any credit for part-time work or work activity participation.

Allowing partial credit for partial work not only seems fair, but it would be in keeping with present day realities and, possibly, longer-term reality as well. Today, about one in five Americans, roughly 8.2 million persons, work part-time (Koba, 2013). Part-time work usually increases during periods of economic downturn, but the 2008 recession has been different, because the increase in part-time work was especially large and has stayed "stubbornly high", as noted by the Federal Reserve Bank of San Francisco (Valletta & Bengali, 2013). Certainly some people choose to work part-time rather than full-time, however a disproportionate number of new jobs have been part-time, low-paying, or both, leaving few options for full-time work (Wiseman, 2013). Most troubling given current TANF work rules is that among unmarried women age 25 to 54 with a high school education or less, there have been "especially large increases" in part-time work during and since the recession, such that one in four now work less than full-time (Valletta & Bengali, 2013).

Another area to which national attention should be paid during TANF reauthorization is that of education and the crucial role it could play in facilitating lasting exits from welfare and permanent places in the

workforce. Current TANF rules concerning education as a countable work activity are very restrictive, yet all available evidence, including findings from this study, clearly indicates that in the labor market of today and tomorrow, education is the fundamental key to sustained success.

The benefits from TANF changes in these two areas would extend well beyond the individual clients affected. For example, absent changes to TANF rules that permit more clients to complete high school education and continue on to post-secondary programs or on-the-job skills training, the cycle of welfare to low-wage work to welfare is unlikely to be broken. Moreover, just as low-skill, sporadic employment does not help clients sustain their families or to remain off welfare, high turnover is not good for employers or the state economy either. Similarly, the national goal of moving families to lasting economic self-sufficiency is unlikely to be realized on a large scale. Amending TANF so as to permit more clients to be trained in the skills and occupations in demand—and perhaps work part-time as apprentices at the same time—would also be beneficial to local employers and could help spark further, sorely needed economic growth.

Despite the current limitations imposed by federal TANF rules, Maryland has taken steps to align its welfare-to-work program with local economic realities. The state's reformed welfare program does emphasize work. Recently, to illustrate, there have been steady increases in the numbers of work-eligible TCA clients placed in education or training activities, and renewed emphasis on the need for individualized client assessment and jobs with sustainable wages in fields where there is growing demand (Passarella & Born, 2013). These internal initiatives are grounded in managers' understanding that getting a job is not the same thing as starting a career, that getting a job is often easier than maintaining it, and that education and

marketable skills will be key ingredients of its clients' success going forward.

These initiatives by the Maryland Department of Human Resources, especially those related to education and skill development, are also consistent with the new Maryland EARN (Earnings Advancement Right Now) initiative, a workforce training program focused on skills in high demand. They are also wholly compatible with the state's Skills2Compete initiative, which aims to ensure that all Marylanders have at least two years of post-secondary education or training. Efforts to target TCA clients for priority inclusion in these larger, market-driven statewide initiatives are highly recommended.

Indeed, women attempting to make permanent transitions from welfare to work are a natural fit for EARN services which seek to address Maryland's most fragile jobseekers in overcoming barriers to employment and creating formal career paths to good jobs (DLLR, n.d.). Today's research and many other Maryland studies show that women receiving TCA have worked in the past and they are motivated to work and provide for their families. Undoubtedly, the data show they are among our state's hard-working families. Investments in clients' human capital development is likely to pay large dividends for their families, their local communities and, indeed, for all of us.

## REFERENCES

- Acs, G. & Loprest, P. (2004). *Leaving welfare: Employment and well-being of families that left welfare in the post-entitlement era*. Kalamazoo, MI: The W.E. Upjohn Institute for Employment Research.
- Born, C.E., Hetling-Wernyj, A., Lacey, D. & Tracy, K. (2003). *Life on Welfare: A snapshot of the active TCA caseload in October 2001*. Retrieved from University of Maryland, Family Welfare Research & Training Group website: <http://www.familywelfare.umaryland.edu/reports1/1001.pdf>
- Born, C.E., Ovwigho, P.C., & Cordero, M. (2002). Returns to welfare under welfare reform: Early patterns and their implications. *Administration in Social Work*, 26(3) 53-69.
- Born, C.E., Ovwigho, P.C., Leavitt, K.L., & Cordero, M.L. (2001). *Life after Welfare: Sixth Report*. Retrieved from University of Maryland, Family Welfare Research & Training Group website: <http://www.familywelfare.umaryland.edu/reports1/life6.pdf>
- Boushey, H. (2002). *Staying employed after welfare: Work supports and job quality vital to employment tenure and wage growth*. Retrieved from the Economic Policy Institute website: <http://www.epi.org/page/-/old/briefingpapers/128/bp128.pdf>
- Brauner, S. & Loprest, P. (1999). *Where are they now? What states' studies of people who left welfare tell us*. Retrieved from the Urban Institute website: <http://www.urban.org/UploadedPDF/anf32.pdf>
- Bureau of Labor Statistics (BLS). (2013, January 28). *Education pays*. Washington, D.C.: Author. Retrieved from U.S. Department of Labor website on April 5, 2013: [http://www.bls.gov/emp/ep\\_chart\\_001.htm](http://www.bls.gov/emp/ep_chart_001.htm)
- Bureau of Labor Statistics (BLS). (2011a). *Labor Force Statistics from the Current Population Survey*. Retrieved from U.S. Department of Labor website on 11/14/2013: <http://data.bls.gov/pdq/SurveyOutputServlet>
- Bureau of Labor Statistics (BLS). (2011b). Table containing history of CPI-U U.S. All items indexes and annual percent changes from 1913 to present. Retrieved from U.S. Department of Labor website on 3/29/2011: <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>.
- Bureau of Labor Statistics (BLS). (2011c). Employment, hours, and earnings from the Current Employment Statistics survey (National), 1970 to date. Retrieved from U.S. Department of Labor website on 3/29/2011: <http://data.bls.gov>.
- Bureau of Labor Statistics (BLS). (2009, October 9). *Labor force participation of women and mothers, 2008*. Retrieved from U.S. Department of Labor website on 5/16/13: [http://www.bls.gov/opub/ted/2009/ted\\_20091009.htm](http://www.bls.gov/opub/ted/2009/ted_20091009.htm)
- Center for Budget and Policy Priority (CBPP) (2012, August 12). *Chart book: TANF at 16*. Washington, D.C.: Retrieved from CBPP website: <http://www.cbpp.org/files/8-22-12tanf.pdf>
- Dworsky, A. & Courtney, M. (2007). Barriers to employment among TANF applicants and their consequences for self-sufficiency. *Families in Society*, 88(3), 379-389.
- Holzer, H., Stoll, M., & Wissoker, D. (2004). Job retention and advancement among welfare recipients. *Social Service Review*, 78(3), 343-369.
- Hopkins, J.S. (2013, September 20). Maryland's job base returns to pre-recession levels. *The Baltimore Sun*. Retrieved from: <http://www.baltimoresun.com>
- Julian, T. & Kominiski, R. (September 2011). *Education and synthetic work-life earnings estimates*. American Community Survey Reports (ACS-14). Retrieved from U.S. Census Bureau website: <http://www.census.gov/prod/2011pubs/acs-14.pdf>

- Koba, M. (2013, September 2). Part-time jobs: Dramatic shift in who is underemployed. *CNBC*. Retrieved from <http://www.cnbc.com/>
- Kwon, H.C. & Meyer, D.R. (2011). How do economic downturns affect welfare leavers? A comparison of two cohorts. *Children and Youth Services Review*, 33(5), 588-597.
- Loprest, P. & Nichols, A. (2011). *Dynamics of being disconnected from work and TANF*. Retrieved from the Urban Institute website: <http://www.urban.org/UploadedPDF/412393-Dynamics-of-Being-Disconnected-from-Work-and-TANF.pdf>
- Lower-Basch, E & Greenberg, M.H. (2008). Single mothers in the era of welfare reform. In A. Bernhardt, H. Boushey, L. Dresser, & C. Tilly (Eds.), *The gloves-off economy: Workplace standards at the bottom of America's labor market* (pp.163-190). Champaign, IL: Labor and Employment Relations Association.
- Maryland Department of Labor, Licensing, & Regulation (DLLR). (n.d.). *Employment Advancement Right Now*. Retrieved from <http://www.dllr.state.md.us/earn/>
- Maryland State Treasurer. (2013). *General obligation bonds*. Retrieved from <http://www.dllr.state.md.us/lmi/mlr/monthlylaborreview.pdf>
- Nicoli, L.T., Logan, L., & Born, C.E. (2012). *Life after Welfare: Annual update*. Retrieved from University of Maryland, Family Welfare Research & Training Group website: <http://www.familywelfare.umaryland.edu/reports1/life17.pdf>
- Nicoli, L.T., Passarella, L., & Born, C.E. (2012). *Life on Welfare: Trends in the TCA Caseload since the Great Recession*. Retrieved from University of Maryland, Family Welfare Research & Training Group website: <http://www.familywelfare.umaryland.edu/reports1/activecaseload11.pdf>
- Passarella, L.L. & Born, C.E. (2013). *Assignment to education and training activities*. Retrieved from University of Maryland, Family Welfare Research & Training Group website: <http://www.familywelfare.umaryland.edu/reports1/researchbrief-edandtraining.pdf>
- U.S. Bureau of Economic Analysis. (2011). Percent change from preceding period in real gross domestic product, 1995 to date.
- U.S. Department of Agriculture, Food and Nutrition Service. (2013, April). *Supplemental Nutrition Assistance Program: Average monthly participation (persons)*. Retrieved on May 2, 2013 from: <http://www.fns.usda.gov/pd/15SNAPpartPP.htm>
- Valetta, R. & Bengali, L. (2013). *What's behind the increase in part-time work?* Retrieved from the Federal Reserve Bank of San Francisco website: <http://www.frbsf.org/economic-research/publications/economic-letter/2013/august/part-time-work-employment-increase-recession/el2013-24.pdf>
- Williamson, S. (2011). *Full-family sanctions & economic recession*. Retrieved from University of Maryland, Family Welfare Research & Training Group website: <http://www.familywelfare.umaryland.edu/reports1/sanctionsbrief.pdf>
- Wiseman, P. (2013, October 21). Part-time work made up more than 65 percent of new jobs created in July. *The Huffington Post*. Retrieved from: <http://www.huffingtonpost.com/>
- Zedlewski, S. & Loprest, P. (2011). *What role is welfare playing in this period of high unemployment?* Retrieved from the Urban Institute website: <http://www.urban.org/UploadedPDF/412378-Role-of-Welfare-in-this-Period-of-High-Unemployment.pdf>